

Amendments to the Specification

Page 21, line 11 through page 22, line 2, please amend the paragraph as follows:

Figure 5 shows an exemplary flow diagram for an MPTR. A number of MPS's 501-506 are shown coupled to a fiber loop 507. Two of the MPS's 502 and 503 504 have been shown in greater detail to depict how data flows in an MPTR. A number of computers 508-510 are shown coupled to MPS 502. Each of these computers 508-510 has a corresponding buffer 531-535. These buffers 531-535 are used to temporarily store incoming data packets from their respective computers 508-510. In the currently preferred embodiment, there is one buffer for each flow. A single device (e.g., personal computer, server, modem, set-top box, terminal, etc.) can have multiple flows. A flow can be an application corresponding to a device. As such a single device can have multiple flows. For example, computer 510 can have three flows 533-535. Associated with each of these buffers 531-535 is a respective controller 544-548 which controls when packets queued in that particular buffer are allowed to be transmitted onto the loop 507. Once a packet is allowed to be transmitted out from MPS 502, it is inserted into an inserter 525 and added with the other outbound packets for that cycle. And when a packet is conveyed from an MPS onto loop 507, that packet is transmitted to its destination at the maximum rate of loop 507 and immediately forwarded through intermediary MPS's (if any).

Page 23, lines 12-25, please amend the paragraph as follows:

In the interim during which a computer transmits data packets faster than its MPS is allowed to put those data packets onto the loop, data packets are temporarily stored in a buffer within its MPS. In the above example, the data rates associated with computers 519-520 were decreased by controllers 552-553, respectively. Suppose that the effect of these data rate reductions is that computers 519-520 generate packets faster than those packets are

now allowed to be put on loop 507 (in order to guarantee the QoS of upstream computer 508). The extra data packets are stored in their respective buffers 522-524. Subsequently, when bandwidth becomes available, the data rates at which MPS 504 can transmit data packets associated with computers 519-521 onto loop 507 is increased. The data packets are pulled from the buffers 522-524 for transmission onto loop 507. In some rare cases, buffers may overflow which results in packet loss. It should be noted that, technically, all data packets are first buffered in the first-in first-out (FIFO) buffers before being put on the loop.